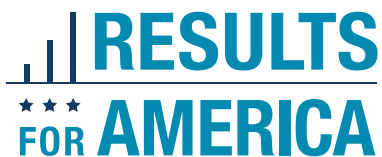


## CASE STUDY

# Tulsa Sends Text Message Reminders to Reduce Court-Issued Warrants



December 6, 2018

**THE CHALLENGE:**<sup>1</sup> In the City of Tulsa, Oklahoma the [Municipal Court](#) issues approximately 22,000 extensions to unpaid court fines – called Time Pay Orders – per year. The Time Pay Order system was originally designed to give residents an additional one- to six-month extension to submit their payments for court fees at the conclusion of a criminal case. Despite the extension, over 70% – or 16,000 – of the issued Time to Pay Orders result in a failure-to-pay warrant each year. Failure to pay often results in suspended driver's licenses, accrual of additional fines, and further involvement in the criminal justice system. In addition, unpaid Time Pay Orders also result in more than \$500,000 each year in unpaid fines.

**THE APPROACH:** In February 2018, the Tulsa [Mayor's Office of Performance Strategy and Innovation \(OPSI\)](#) in partnership with [Tulsa Municipal Court](#) jointly hypothesized that many of the 16,000 residents who were issued failure-to-pay warrants missed their payment deadline because they forgot their due date or lost their Time to Pay Order paperwork. Using a script developed with [Code for Tulsa](#), text message payment due date reminders were sent to a randomly selected pool of Time Pay Order recipients once each month leading up to their payment deadline. Between March and September 2018, Tulsa implemented this text message reminder pilot project.

**THE RESULTS:**<sup>2</sup> Following the completion of their pilot project, Tulsa evaluated the impact of the text message reminders. Results show that fewer failure-to-pay warrants were issued among those who received text message reminders. More specifically, during the six-month test period between March and September 2018, 63% of those who received a text message reminder paid all of their outstanding fines, compared to only 48% of residents who did not receive a reminder – a 15 percentage point increase. Tulsa estimates that the annual impact of this work amounts to an estimated 320 people paying outstanding fees on time, an additional \$187,000 in annual revenue and an estimated 15% reduction in the collateral consequences of municipal warrants for these affected residents.

## INTRODUCTION

In February 2018, [Tulsa Municipal Court](#) partnered with the [Mayor's Office of Performance Strategy and Innovation \(OPSI\)](#) to pilot a data-driven approach to reduce the number of warrants issued as a result of unpaid court fines for criminal cases. The city government's hypothesis was that many warrants currently being issued for unpaid court fines could be avoided by reminding residents of their past due fines via text messages.

Normally, when a defendant is unable to pay a court fine in the Tulsa Municipal Court, a judge issues a one- to six-month extension called a Time Pay Order. However, the majority of defendants still do not pay by their extended deadline, and the City does not send reminders of payment deadlines. As a result, Tulsa Municipal Court automatically issues an average of 16,000 failure-to-pay warrants each year. Over 70% of all Time Pay Orders result in a failure-to-pay warrant, and the warrants have a snowball effect, driving many residents deeper into a cycle of fines and court-involvement. Unpaid Time Pay Orders also result in more than \$500,000 each year in unpaid fines.<sup>3</sup>

## Current Time Pay Order Paper Format

IN THE MUNICIPAL CRIMINAL COURT OF THE CITY OF TULSA  
TULSA COUNTY, STATE OF OKLAHOMA

THE CITY OF TULSA, PLAINTIFF, 7436302 - \$34  
7436303 - \$174  
7436304 - \$224  
vs. John Dec DEFENDANT, Case No(s) 7436305 - \$100

RULE 8 HEARING - ORDER  
(TIME TO PAY - WORK HOURS - INCARCERATION)

Upon a hearing held this 8<sup>th</sup> day of December, 2017, the Court finds as follows:

Time to pay: The above captioned Defendant is unable to immediately pay the fine(s), court cost(s) and/or fee(s) in the above listed case(s). The Court finds that the Defendant is able to pay in installments and is ordered to pay the fine(s), costs and/or fees as follows:

TOTAL AMOUNT DUE: \$ 816.00  
Partial payment of \$ 100.00 by 5:00 P.M., today.  
The balance of \$ 716.00 no later than 5:00 P.M. on June 8, 2018

Work Hours: The Defendant is ordered to complete work hours before [blank] in lieu of paying fine(s), cost(s), and/or fee(s). Work hour projects will be assigned by and must be preapproved by the Production Office (305 Civic Center, Room 321). Should the defendant fail to complete his/her work hours, the defendant shall report to court on the above deadline at 10:30 a.m. to show cause as to why the defendant should not be incarcerated for willful or negligently failing to complete the assigned work hours.

Incarceration: The Defendant is able to pay his/her fine(s), cost(s) and/or fee(s) or perform work hours, in lieu of paying fine(s), costs, and/or fees and has willfully refused or neglected to pay or perform work hours. The Defendant is ordered to be incarcerated in the City Jail at a rate of one (1) day for each \$25.00 dollars of the fine, fees and costs assessed for a total of [blank] days of incarceration to satisfy the fine(s), costs and/or fees.

Attest:

CLERK OF THE MUNICIPAL CRIMINAL COURT  
By [signature] DEPUTY COURT CLERK

JUDGE OF THE MUNICIPAL CRIMINAL COURT  
[signature]

I have read and understand this Order.  
John Dec DEFENDANT  
123 S. Main Tulsa OK, 74112 ADDRESS  
918-123-4567 TELEPHONE NUMBER

\* Defendant fills out this section

SOURCE: TULSA MAYOR'S OFFICE OF PERFORMANCE STRATEGY AND INNOVATION (OPSI)

In August 2017, [James Wagner](#), Chief of Performance Strategy and Innovation for the City of Tulsa and Results for America Local Government Fellow, participated in a Bloomberg Philanthropies' [What Works Cities](#) training led by the [Behavioral Insights Team](#). There, he and other Tulsa city government staff, including a Tulsa Municipal Court staff member, had the

## What is a Randomized Controlled Trial and how was it used in Tulsa?

A randomized controlled trial (RCT) is a quantitative, comparative evaluation method. Individuals are selected at random to either receive the intervention that is being tested or be placed in a comparison or "control" group that does not receive the intervention. Outcomes for each group are compared to measure the effect of the intervention. In Tulsa, telephone numbers provided an easy strategy for randomly assigning individuals to three groups. One group of residents, with telephone

numbers ending 0, 1, or 2, did not receive any reminder of their payment deadline (the "control" group). A second group of residents, with telephone numbers ending in 3, 4, or 5, received a "friendly" text message notifying them of their payment deadline. A third group, with telephone numbers ending in 6, 7, 8, or 9, received a "standard" text message that included both the deadline and language about the consequence for not paying — issuance of a failure-to-pay warrant.<sup>4</sup>



opportunity to learn more about how behavioral insights and low-cost evaluation can help cities improve outcomes for residents. They identified failure-to-pay warrants as a problem well-suited to a low-cost randomized controlled trial evaluation.

Led by James Wagner, OPSI and the Tulsa Municipal Court developed strategic partnerships with pro bono software developers and behavioral science experts to design, implement, and evaluate a new text message reminder system for 1,900 residents with Time Pay Orders over six months. Through this pilot, Tulsa increased on-time payments by 15 percentage points through the use of automatic text message reminders.

## THE CHALLENGE<sup>5</sup>

The [Tulsa Municipal Court](#) Time Pay Order system was originally designed to reduce the immediate cost burden of court fines, which can range from \$20 to nearly \$5,500, by giving residents an additional one- to six-month extension to submit their payment. Despite the payment due date extension, this system continued to produce thousands of warrants each year resulting from unpaid fines. Out of the approximately 22,000 Time to Pay Orders issued each year, 16,000 – over 70% – resulted in the issuance of a failure-to-pay warrant.

When a judge issues a Time Pay Order, the defendant signs and receives a paper copy of the order indicating the amount owed and the new payment deadline. Historically, the Municipal Court has not sent follow-up reminders for Time Pay Order deadlines. Tulsa city staff believed that without a payment reminder system, many residents who would have been able to pay within the designated time frame simply forgot to submit their payment and unknowingly received a failure-to-pay warrant.

“ We are building the capacity in local government to innovate and test new approaches to solving intractable problems. This approach gives us freedom to try something new and evaluate it before we make major investments. If it works, we scale up; if not, we adjust our approach and test again. ”

— G.T. BYNUM  
Mayor of Tulsa



Tulsa Mayor G.T. Bynum greets a child at the grand opening of the Gathering Place in September 2018.

## THE CHALLENGE (CONTINUED)

Unpaid Time Pay Orders result in more than \$500,000 each year in unpaid fines and contribute to the City's incarceration rates. For many residents, Time Pay Orders that were intended to help them pay off their court fines instead resulted in suspended driver's licenses, accrual of additional fines, and further involvement in the criminal justice system. In some cases, residents were not aware of their failure-to-pay warrant until they committed a subsequent traffic violation or had other contact with local law enforcement.

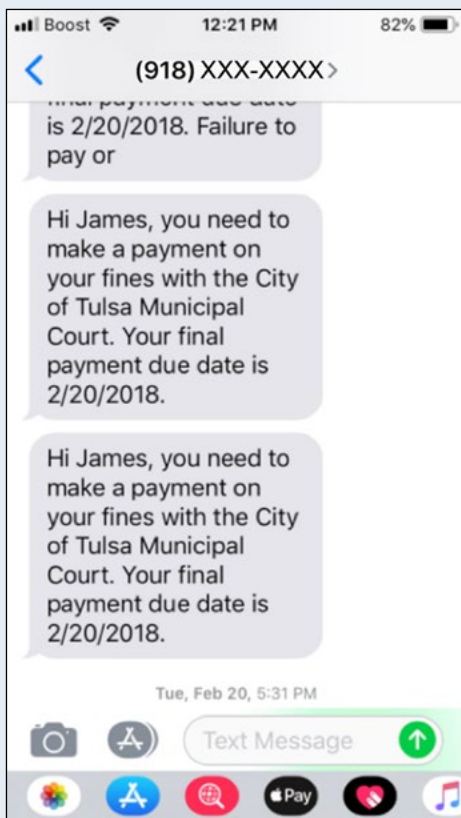
## THE APPROACH

In February 2018, the Tulsa [Mayor's Office of Performance Strategy and Innovation \(OPSI\)](#), in partnership with [Tulsa Municipal Court](#),

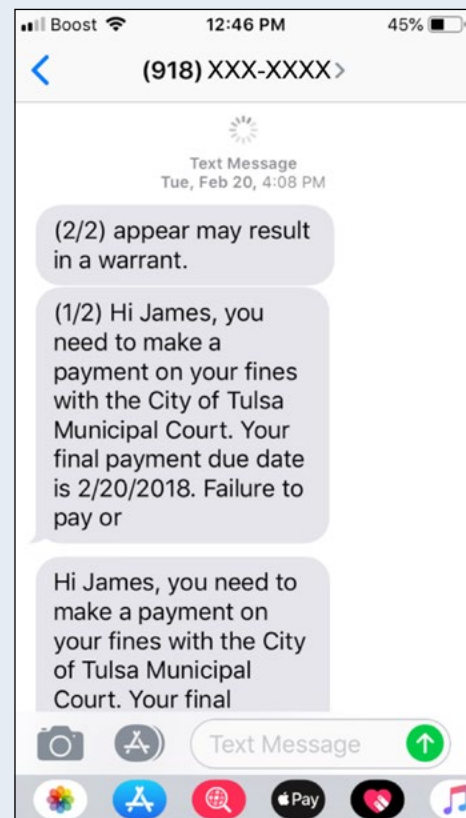
hypothesized that some of the 16,000 residents who were issued failure-to-pay warrants missed their payment deadline because they forgot their due date or lost their Time to Pay Order paperwork. The two entities wanted to develop an automatic reminder system using evidence-based behavioral science strategies, and they wanted to rigorously test this system to determine whether it effectively increased court fine payments.

OPSI and the Municipal Court applied the U.K.-based Behavioural Insights Team's [EAST Framework](#), which helps policymakers use behavioral science to create more effective and efficient policies. Behavioral science is the study of people's motivations, decision-making processes, and interactions, as well as the implications of those findings in fields ranging from economics and marketing to public policy.<sup>6</sup>

### Friendly SMS Text Message Reminder



### Standard SMS Text Message Reminder



SOURCE: TULSA [MAYOR'S OFFICE OF PERFORMANCE STRATEGY AND INNOVATION \(OPSI\)](#)

Specifically, the EAST framework stands for Easy, Attractive, Social, and Timely, and the framework includes four stages for behaviorally-informed project development<sup>7</sup>:

1. Define the outcomes
2. Understand the context
3. Build your intervention
4. Test, learn, adapt

OPSI and the Municipal Court determined that text messages were the delivery method most likely to boost outcomes cost-effectively because texts are easy and inexpensive to deliver and track, and, unlike mail and email, they are not affected by home address changes or computer access. OPSI and the Municipal Court then partnered with [Code for Tulsa](#), a [Code for America](#) affiliate that connects technology and design industry professionals with local government projects. Through their free consulting services, Tulsa was able to work with developers to create a Google Sheet linked to a script that sends automated text message reminders to a randomly selected pool of Time Pay Order recipients.

In writing the text message payment reminders, Tulsa staff consulted with the Municipal Court judges and the [Behavioral Insights Team](#) to develop language that was both consistent with court standards and also simple and accessible for residents. They applied two key evidence-based behavioral science principles – personalization and loss aversion – and created two versions of the script to test which message would be most effective in boosting payments. Both messages were personalized with the individual's first name and stated the payment deadline.

OPSI and the Code for Tulsa found a low-cost text message gateway, [Twilio](#), to send text

“ The reality is that most of the time local governments solve problems based on a theory of change without rigorously testing to determine if those theories work. We’re taking a scientific, yet simple approach to evaluating effectiveness of our hypotheses which allows us freedom to innovate and the confidence to test and scale. ”

— JAMES WAGNER  
Tulsa Chief of Performance  
Strategy and Innovation

messages to residents for less than one cent per message. Using the Code for Tulsa script, text message payment reminders were sent automatically based on data stored in a Google Sheets spreadsheet. Tulsa also worked with the Behavioral Insights Team to develop a plan for testing the impact of and analyzing the results of the text message reminders. Text messages were sent to Time Pay Order recipients once each month leading up to the payment deadline. For example, a resident with a three-month extension would receive three reminders, timed 90, 60, and 30 days from their payment deadline.

To carry out the randomized controlled trial, OPSI reviewed past Time Pay Order data and determined that they would need approximately six months of data to produce statistically significant results.



## TIPS FOR REPLICATION

- **A Quick and Low-Cost Project Helps Overcome Perceived Barriers:** While many Tulsa City departments were eager to apply behavioral science to their work, OPSI encountered hesitation among city staff to incorporating empirical evaluation alongside their work. By implementing a randomized controlled trial with 1,900 participants in just six months at very little cost to the City of Tulsa, OPSI and the Municipal Court demonstrated that evaluation is more feasible and less disruptive than city staff realized.
- **Take Time to Get the Language Right:** In shaping the text message reminders, Tulsa city government staff had to carefully balance different interests. The Municipal Court needed to ensure that the language was consistent with Judges' preferences and legal standards. However, in order to be accessible to the wider public, the text reminders had to use clear, plain language. At the same time, Tulsa city government wanted to incorporate key behavioral science concepts, including personalization and loss aversion.
- **Pro Bono Partners Can Help:** Thanks to Code for Tulsa, OPSI was able to avoid costly

new software and development fees. The partnership also allowed the City of Tulsa to get the project off the ground more quickly by avoiding a lengthy request for proposal process. However, pro bono partnerships are not without challenges. When Tulsa needed to troubleshoot an issue with the backend code that generated the text messages, it took longer than they anticipated to implement a change to the code.

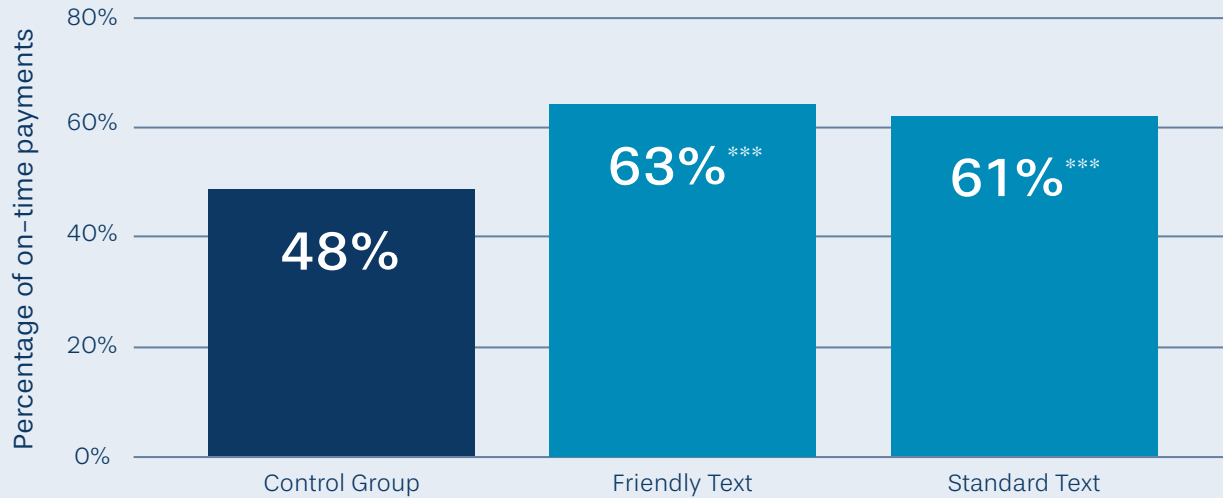
- **Invest in Replicable Technology:** The code that generates Municipal Court reminder texts is connected with a Google Sheets spreadsheet and can easily be replicated for other projects. Tulsa hopes to implement a similar reminder system to encourage residents to comply with the City's pet license renewal laws.
- **Not Every Project is Right for a Low-Cost Randomized Controlled Trial:** To keep evaluation costs low, Tulsa had to select a topic where a large amount of data could be easily collected within a relatively short time frame. OPSI explored similar evaluation strategies with other projects, such as efforts to reduce recycling contamination, but the timeline and multiple steps required to collect sufficient data reduced feasibility.



Tulsa Mayor G.T. Bynum with local elementary school students.

# EVALUATION RESULTS FROM TULSA'S 2018 TIME PAY ORDER PILOT

Tulsa Municipal Court Time Pay Order Payment Rates  
(n = 1931)



\*\*\*p<.001

SOURCE: TULSA MAYOR'S OFFICE OF PERFORMANCE STRATEGY AND INNOVATION (OPSI)

## THE RESULTS<sup>8</sup>

This pilot demonstrated a 15 percentage point decrease in warrants issued for residents that received automatic payment reminder texts compared with those that did not receive text reminders. Both text messages performed equally well.

- Over the course of the six-month data collection period (March – September 2018), 63% of those who received a text message reminder paid all outstanding fines, compared to only 48% of those who did not receive a reminder. That difference was statistically significant, meaning that it was highly unlikely to be the result of random chance.
- While there were two different text messages sent to two separate randomly selected pools of recipients — one with the payment deadline and a second with the deadline and the consequence for not paying — there was only a 2 percentage point difference in payment outcomes between the two. That difference was not statistically significant.

- The six-month pilot program generated an estimated \$93,000 in additional revenue.
- As a result of these preliminary results, Tulsa will expand its text reminder system to all Time Pay Orders beginning in 2019.

The City of Tulsa sees the completion of the Time Pay Order pilot as a key milestone in their effort to build a culture of evaluation within City government. The Tulsa Municipal Court is already exploring other ways to apply both behavioral science and low-cost RCTs to other initiatives. For example, they are exploring using a similar approach to address failures to appear in court. Tulsa also began working with an intern at the University of Chicago's [Becker Friedman Institute](#) to train more City departments on RCTs and to complete initial project development for nine additional evaluation projects the City is exploring. More broadly, the Time Pay Order payment reminder project has already generated inquiries from states and other courts thanks to its low cost and replicability.

## ABOUT RESULTS FOR AMERICA'S LOCAL GOVERNMENT FELLOWSHIP PROGRAM

Results for America's Local Government Fellows program was founded in September 2014 to provide an advanced group of local government leaders in diverse and influential cities and counties across the country the knowledge and support to implement strategies that consistently use data and evidence to drive policy and budget decisions on major policy challenges. With the support and guidance of Results for America, the Local Government Fellows lead their governments toward advanced stages of data-driven and evidence-based policymaking in order to address major policy challenges in their communities. The **16 cities** and counties represented in the Fellowship collectively represent more than **28 million** people and **\$148 billion** in local government spending.

### RFA engages its local government Fellows in:

- Defining short- and long-term policy goals;
- Developing research partnerships with academics;
- Sharing best practices and demonstration projects;
- Problem solving among peers;
- Receiving individual feedback and coaching; and
- Participating in a national network and peer cohort.

Tulsa has also worked with Results for America, the Center for Government Excellence at Johns Hopkins University (GovEx), the Sunlight Foundation and the Behavioural Insights Team (BIT) through Bloomberg Philanthropies' What Works Cities initiative to develop the capacity to conduct low-cost real time program evaluations, enhance open data practices and develop a performance management framework. You can find more information here: <https://whatworkscities.bloomberg.org/works-city-feature-tulsa/>.

## ACKNOWLEDGEMENTS

Results for America would like to thank Tulsa Mayor G.T. Bynum for investing in the use of data and evidence to improve government services, as well as the [Mayor's Office of Performance Strategy and Innovation \(OPSI\)](#) and [Tulsa Municipal Court](#) for their assistance in developing this case study:

- Cecily Wallman-Stokes, Advisor, BIT North America
- James Wagner, Chief of Performance Strategy and Innovation, City of Tulsa
- Jamie King, Cost Administrator, Tulsa Municipal Court
- Kelly Brader, Court Administrator, Tulsa Municipal Court
- Michael Kalin, Sr. Advisor, BIT North America
- Sidd Mandava, Associate Advisor, BIT North America

## ADDITIONAL RESOURCES

- Read more about The Behavioral Insights Team's Behavioral Insights for Cities: <http://38r8om2xjhh125mw24492dir-wpengine.netdna-ssl.com/wp-content/uploads/2016/10/Behavioral-Insights-for-Cities-2.pdf>.
- Watch a video highlighting the projects of the City of Tulsa Office of Performance Strategy and Innovation: <https://vimeo.com/259236755>.
- Learn more about Bloomberg Philanthropies' What Works Cities initiative at <https://whatworkscities.bloomberg.org>.
- Learn more about Results for America's **Local Government Fellowship** at <http://results4america.org>.



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## PHOTOS

**Cover Photo:** Lathen Kamas, City of Tulsa  
Communications Department.

**Page 3:** Brian Nutt, City of Tulsa Communications  
Department.

**Page 6:** Brian Nutt, City of Tulsa Communications  
Department.

## ABOUT THE INVEST IN WHAT WORKS POLICY SERIES

This report is part of Results for America's Invest in What Works Policy Series, which provides ideas and supporting research to policymakers to drive public funds toward evidence-based, results-driven solutions. Results for America is committed to improving outcomes for young people, their families, and communities by shifting public resources toward programs and practices that use evidence and data to improve quality and get better results.



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Policy  
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This case study has been produced with the generous support of the Laura and John Arnold Foundation and the George Kaiser Family Foundation. The case study is an independent work product of Results for America, and the views expressed are those of the authors and do not necessarily represent those of the funders.